- Sub app. for primacy CL II 4/20/81 to H.Q. for review -

- Between 4/20 & 7/16 rec'd - sev'l ~~copy of~~ verbal comments

- After July 16th - discussions between Law & H.Q. & Law of CDOH staff. Going over comments

- Sept 17, 1981 meeting - how to respond to H.Q. 7/16/memo - In addition to aquifer exemptions.

- Re injecting produced water/brines is re-injected into prod. aquifer -- this is vast majority of aquifer exempt.

~~all other comments were worked out~~

Sept - in discuss. w/ DCOG - It was clear that the prob. was going to be aquifer exemption - spec. Re-inj/ext. brines into a non-prod aquifer.

After Sept. all other comments were resolved except aquifer exemption.

~~Oct/Nov.~~

- After Sept - prob w/ aqui exempt. criteria under existing regs would have made it diff. to get aqui exempt through.

Oct/Nov - Reg board that there was an additional criterion for aqui exemp.

Feb 10th, 1982 - Nate's son III.

STATE OF CALIFORNIA—RESOURCES AGENCY

EDMUND G. BROWN JR., *Governor*

DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS
1416 - 9th STREET, ROOM 1310
SACRAMENTO, CALIFORNIA 95814
(916) 445-9686

March 12, 1982

Mr. Alan Levin
Director, State Programs Division
U.S. Environmental Protection Agency
Office of Water Supply WHSSO
401 M. Street,S.W.
Washington, D.C. 20460

Dear Mr. Levin:

California Application for Primacy
in the Regulation of Class II
Injection Wells Pursuant to
Section 1425 of the SDWA

I need to vent my frustration in writing. As you know, we submitted our application for primacy for Class II wells in California to the Regional Office on April 20, 1981. Since that time, we have had several meetings with Nathan Lau of the Regional Office to respond to questions regarding our application. We feel we have always responded to those questions in a timely and adequate fashion, no matter how trivial the question. Lau has always seemed satisfied, although we never received any formal request, acceptance, or rejection of the material we have submitted.

One session on September 17, 1981, was spent responding to questions raised by Phillip Tate in a July 16, 1981 memo to Bill Thurston. Following that session, things more or less came to a standstill. Response to our calls to the Regional Office regarding the status of our application and concern with the way things were progressing were always of a sympathetic and courteous nature, but nothing happened. This inaction prompted my call to you in January.

Your prompt action generated some response from the Regional Office. A meeting was set for February 10 and then postponed and held on February 17. At that session, we again discussed the MOU and responded to some concerns about some of our aquifer exemptions. At that time, I also asked for and received a hand-written schedule of events that were to occur over the next four months that would culminate with delegation of Primacy on June 28, 1982.

The results of that session were encouraging -- then the ultimate fiasco occurred. I received a draft letter from Lau asking us to respond to the questions that Phillip Tate had raised in his July 16, 1981 letter. These were questions we had responded to at sessions

held some seven months ago.

I immediately called Lau and told him that sending such a letter nine months after the questions had been raised made them look extremely foolish. But more importantly, that it is completely frustrating to me and my staff who have spent many hours on this project with apparently little headway being made. As a result of our talk, he has agreed not to send such a letter, but to meet with us on March 16, 1982 and get any information in writing that he needs to complete our application to his satisfaction. Hopefully, we are on the path to resolution of the problem, but I sometimes feel that our dealings with the Region Nine Office are going in ever-expanding circles.

For your information and record, I am enclosing a copy of our application minus two volumes of aquifer exemption material, the Phillip Tate letter with some pertinent comments in the margins, Alan Hager's letter in response to some of the Tate questions, and Lau's draft letter of March 10, 1987.

Sincerely,

M. G. Mefferd
State Oil and Gas Supervisor

MGM:iw

Enclosures

P.S. Talked to Frank Covington late yesterday. He was apologetic and said they had confused and that they would work very hard to resolve any problems with our application. I was thankful but pointed out that it had been eleven months since we had submitted what I considered to be a very strong and sound application. He reiterated his awareness of the situation and his desire to get things resolved. I'm keeping my fingers crossed.

Regards,

Marty

THE AQUIFERS LINED OUT IN RED ARE ONES WHICH NEED NOT BE EXEMPTED BECAUSE THE FORMATION FLUID HAS A TOTAL DISSOLVED SOLIDS CONCENTRATION OF MORE THAN 10,000 MG/L. THIS IS DONE WITH THE ASSUMPTION THAT THE "E LOG CALCULATION" IS A VALID ESTIMATE AND AN "ANALYSIS FROM AN ADJACENT FIELD" IS REPRESENTATIVE OF THE WHOLE AQUIFER.

A ROMAN NUMERAL WRITTEN IN RED IS THE MINIMUM CRITERIA WHICH MUST BE MET TO EXEMPT THE SPECIFIC AQUIFER. THE CRITERIA IS MINIMUM IN THAT IT IS THE LEAST STRINGENT CRITERIA WHICH IF MET WOULD EXEMPT THE AQUIFER AS AN UNDERGROUND SOURCE OF DRINKING WATER. (III IS LESS STRINGENT THAN IV WHICH IN TURN IS LESS STRINGENT THAN II).

WHERE AN AQUIFER IS MARKED WITH A "B" NEXT TO A ROMAN NUMERAL, THERE IS A QUESTION ABOUT WHETHER OR NOT THE AQUIFER SHOULD BE EXEMPTED. THE QUALITY OF THE INJECTION FLUID MAY BE DEMONSTRATED TO BE BETTER THAN THE FORMATION FLUID.

INJEC
START

DIST.

4/67

2/52
0/78
8/64

7/57

1,.6

1/75

7/75

7/77
7/77
1/69

NONHYDROCARBON-PRODUCING ZONE INJECTION DATA

	DIST.	FIELD	FORMATION & ZONE	TDS OF ZONE WATER PRIOR TO INJECTION	TDS OF INJECTED WATER	VOLUME INJECTED (Barrels)
	~~1~~	~~Belmont Offshore~~	~~Repetto~~	~~30,800~~		
	~~1~~	~~Dominguez Beach~~	~~Lakewood~~			
			~~Alpha 1~~	~~37,200~~		
			~~Alpha 2~~	~~12,500~~		
	~~1~~	~~Sawtelle~~	~~Puente~~	~~25,500~~		
	~~1~~	~~Seal Beach~~	~~Repetto~~	~~29,700~~		
			~~Recent Sands~~	~~30,200~~		
	~~1~~	~~Wilmington~~	~~Caspur~~	~~28,200~~		
	~~1~~	"	~~River Gravels~~	~~30,800~~		
	2	Ramona	Pico	5,000	15,300 ppm NaCl	1,793,000
B	2	South Tapo Canyon	Pico	1,900 ppm NaCl	600 ppm NaCl	1,903,000
	2	Oat Mountain	Undiff.	4,800	23,800 ppm NaCl	91,000
	2	Simi	Sespe	4,300	25,500 ppm NaCl	695,000
	~~3~~	~~Guadalupe~~	~~Knoxville~~	~~30,500~~		
	~~3~~	~~Lompoc~~	~~Lospe~~	~~119,000~~		
	~~3~~	~~Lompoc~~	~~Knoxville~~	~~30,500~~		
	~~3~~	~~Russell Ranch~~	~~Branch Canyon~~	~~13,000~~		
	3	San Ardo	Santa Margarita	3,700	5,600	81,800,000
	3	"	Monterey "D" Sand	4,600	5,600	13,795,000
B	3	"	Monterey "E" Sand	6,400	5,600	6,057,000
	~~3~~	~~Santa Maria Valley~~	~~Lospe Franciscan~~	~~119,000~~		
	3	Monroe Swell	Santa Margarita	3,700 ppm NaCl	9,600	?
	~~3~~	~~Point Conception~~	~~Camino Cielo~~	~~26,200~~		
	~~3~~	~~Guadalupe~~	~~Franciscan~~	~~30,500~~		
	~~4~~	~~Bellevue~~	~~Etchegoin~~	~~26,500 (Analysis from adjacent field)~~		
	~~4~~	~~Bellevue, West~~	~~Tulare~~	~~12,000*~~		
	~~4~~	"	~~Etchegoin~~	~~26,500 (Analysis from adjacent field)~~		
	4	Blackwell's Corner	Tumey	2,100 -2,600*	29,000 ppm NaCl	400,000
B	4	Buena Vista	Tulare	9,200	5,300-36,500	50,798,000
	~~4~~	~~Cal Canal~~	~~Tulare-San Joaquin~~	~~Excess of 10,000*~~	~~22,000~~	~~537,000~~
	~~4~~	~~Canfield Ranch~~	~~Etchegoin~~	~~12,800 26,500 (Analysis from adjacent fields)~~		

*"E" log calculation

	FIELD	FORMATION & ZONE	TDS OF ZONE WATER PRIOR TO INJECTION	TDS OF INJECTED WATER	VOLUME INJECTED (Barrels)
III 5	Guijarral Hills	Etchegoin-Jacalitos	9,400	20,500	931,000
~~5~~	~~Helm~~	~~Santa Margarita~~	~~35,900~~		~~(143,000,000~~
III 5	"	Tulare-Kern River	5,100-23,900	11,600-43,400	(
~~5~~	~~Jacalitos~~	~~Etchegoin-Jacalitos~~	~~33,749~~	~~5,500 (Cl only)~~	~~180,000~~
~~5~~	~~Kettleman North Dome~~	~~San Joaquin-Etchegoin~~	~~10,000~~	~~23,800-31,200~~	~~48,608,000~~
~~5~~	~~Raisin City~~	~~Pliocene~~	~~12,800-34,000~~		
~~5~~	~~"~~	~~Santa Margarita~~	~~35,000 (Analysis from Helm field)~~		
III 5	Riverdale	Pliocene	4,788-16,200		(72,626,000
~~5~~	~~"~~	~~Santa Margarita~~	~~35,900 (Analysis from Helm field)~~		~~(~~
~~5~~	~~San Joaquin~~	~~Pliocene~~	~~17,100~~		
~~5~~	~~San Joaquin, Northwest~~	~~Basal McClure~~	~~90,000~~	~~18,500~~	~~Test well-no injecti~~
III 5	Turk Anticline	San Joaquin	3,700- 4,440	9,500- 9,800	466,000
IX 6	Bunker Gas	Undiff.	1,200	11,000	388,000
~~6~~	~~Grimes Gas~~	~~Kione~~	~~16,800~~		
~~6~~	~~Grimes, West, Gas~~	~~Kione~~	~~34,000*~~		
~~6~~	~~La Honda (South Area)~~	~~Vaqueros~~	~~41,000~~		
~~6~~	~~Lathrop Gas~~	~~Starkey~~	~~15,400*~~		
VII 6	River Break Gas	Capay	6,900*	7,000	93,000
~~6~~	~~Roberts Island Gas~~	~~Undiff.~~	~~18,000*~~		
IX 6	Sutter Buttes Gas	Kione	2,500	4,600-23,000	644,000
III 6	Union Island Gas	Mokelumne River	5,000-6,000*	7,800	471,000
IX 6	Wild Goose	Undiff.	2,800-5,000*	21,400	823,000

* "E" log calculation